Animations explanations

The number 1 animation is showing a translational kinetic of paddle coupled with a strictly rotational movement of the cylinder. We can see the Figure of displacement of the ends of the paddle realizing circle for each one.

The number 2 animation shows that the Translational rotational basic kinetic is possible for all post rotary material forms of machine

The number 3.1 animation shows that the cylinder can realise the translational movement and the paddle the rotational movement, here in retro rotary material figure In this cas, the sense of elements in inversed. Normally, in retro rotary material figure, the paddle and cylinder are travelling in same direction in translational realisation. When it is the cylinder that is translational, the parts become in a contrary movement

The number 3.2 animation shows that when the material post rotary figure a re realised with the cylinder in translational movement, the part are running in the same direction

The number 4 animation is showing that a set of single translational paddle can run in a rotational cylinder.

The animation 4 .2 is showing a post rotary material form running in a retro rotary opposite form of geometrical figure In that case, the geometric form and the figure of displacement are realised successively, and are the same.

The animation 4 .3 is showing a retro rotary material 3 on 4 sides form running in a post rotary opposite form of geometrical figure of double arc In that case, the geometric forem and the figure of displacement are realised successively, and are the same.

The number 5 animation show a material figure of post rotary 3 in 2 , realising a geometric form of six sides , realised successively

The number 6 animation shows that when the number of sides of the Geometric form is superior to the opposite type form of cylinder, and it is realised successively, the Figure of displacement of points of the paddle are similar one to the other but at several position , and are different from the Geometrical figure, and from the material figure

The number 7 animation shows that the turbinative kinetic is available also for machine realised with paddle structure

The number 8 animation shows a trochaic piston double arc material figure running in a on side geometric figure production only on compression by turn

The animation number 9 is showing a trochaic paddle double arc cylinder material figure, running in a eight side geometrical figure. Here , the Figure of sequence of explosion, that we can se by the green arrow, is by steps of two side, so is the following, 1, 4,7,2,5,8 3,6 . One can see, that Geometric figure an the Figure of displacement are similar.

The animation number 10 shows specifically the work of the displacement figure

The animation figure 11 show an 2 on 3 material figure realising by steps a seven sides geometrical figure , in contrary

The animation figure 12 show an 2 on 3 material figure realising by steps a five sides geometrical figure , in contrary movement

The animation number 13 shows a material 2 of 3 sides, in a geometric figure of five sides , realised successively

The animation number 14 shows the figure of displacement , of the last figure , witch is realising a complex form.

New expressions and vocabulary

We asking examiner to accept the following expressions and vocabulary , specific to the invention , without which, the invention would not have its full sense , and for which there doesn't exist correct vocabulary in standard language. The words and expressions have been frequently utilized by the inventor in presentations, shows and conferences, and generally make the explanations easier to understand.

Turbinative machine: this expression has been chosen by the inventor to categorise the diverse variations of the invention because the majority of them are near that of the translational/rotational movement which, like in turbines, does not realise any acceleration or deceleration.

Induction : is specifically utilised for a mechanical induction of a compression part in a rotary or turbinative machine

Semi transmittive : is said of an induction of a rotational part, or of an induction in which the support gear is dynamically motived

Figure of displacement points : is said of the figure realised by any point of a compression part when it is observed from the exterior. It would be the figure that would be designed by this point, on the side of the bloc, if we would fix a brush to this point.

Geometric figure : the figure that is similar to all the top compressive points of a cycle of a turbinative machine

Sequential figure : the figure of the sequence of realisation of the Geometric figure.

Material figure : is the figure of the material paddle and cylinder, which are the figures of the Art of rotary machines

Opposite form of the material figure : the opposite form of cylinder for the paddle. For example, a square arc cylinder is the opposite form , for the same trochaic paddle, of the double arc cylinder, the first realising the retro rotary type of machine and the other the post rotary type. double arc cylinder,

activated in opposite direction of the cylinder. But when talk of contrary movement, we talk specially of a contrary movement of the compressive parts, this comprising the contrary movement of the eccentric.

Translational movement and clokwise movement : are not only the movement of a compressive part realising a translational displacement, but also the translational component movement which is included in a planetary movement when the sequence of compression is alternative and by steps, which is happening when the next explosion is between contrary forms of the material figure and the standard form area. We talk of Clokwise movement because the paddle is running like the successive numbers of a clock , realising a circle , and not changing direction.

Polycamed gearing : is said of gears that are realised with a succession of eccentric curves , and in a way so that when they are coupled together, the step positions are coupled to the sleep position and successively, the sleep position is coupled to the step position of the other.

Wankel

In his invention, Wankel realizes in a machine block, the complementary movement of two compressive parts, a piston and a cylinder, the movement of either part being strictly rotational. A standard crankshaft, by this I mean, realized with an eccentric or with a crankpin, will never be employed in the invention, and the motor shaft simply rotates to an axle fixed to the piston or to the cylinder. This machine will be of less interest than the standard one because, t realizes a rounder expansion, a longer dead time, and only one compression per turn, so only one explosion per two rotation in a four stroke cycle.

All these results are, evidently, totally opposite to that of the Turbinative engine.

Swham

Schwam intended to produce a rotatary engine, in which each compressive part will be realised with one crankshaft, the compressive parts and mechanical means being mounted around an inner central support piece, each of these crankshafts being joined to a propeller , these propellers, crankshafts, and compressive parts supposedly working in reverse orientation , and at the same speed, the result, strictly found in airplane engines, of the invention being to subtract the gyration effect of a single propeller.

The organisational structure of Schwam, principally its double crankshaft means, its central means of support, is totally ineffective in standard applications, and in airplane applications, will result in enormous realization difficulties. On another note, supposed equal speed of compressive parts in contrary sense is technically impossible, because , the maximum opposite speed of the cylinder in relation to a contrary motion of the piston is of one half, and is realized in a Translational kinetic. Finally, Schwam never gives any figure of opposite movement, and one is forced, at this stage, to consider that any movement is purely a hypothesis. The only figure of the patent which shows arrows in contrary motion is in fact, a standard kinetic, because the cylinder is not moving at all. It must be added that when paddle and piston are moving in the same direction, the crankshaft of the paddle an the cylinder are running in opposite directions, but the mechanical induction supporting the compressive part will be a retro rotary one, so will offer a rear working paddle. Schwam never supposes a contrary movement of compressive parts, but simply of the cylinder and paddle's crankshaft, and it remains at this point, a supposition. It is clear that contrary movements of piston and cylinder may never realize any machine if their kinetic is not controlled in definite ratios in relation to the exterior, and that many contrary motions may never pass, and this infinitely, at the same point of the bloc. So, it is totally inopportune to extend his hypothesis, and guarantee its working value and its limits.

Brodov

Before any other consideration, the Brodov's realization is a new technical way to realize a rotativo machine with a higher degree of freedom. Brodov replaces the standard means of orientationnel control of the paddle by an organ, called by Brodov himself , a synchroniser. This mechanical means is just as complex. In fact, it is composed of pieces designed in curved forms. These curved sliding forms will produce variations of paddle movement in relation to its crankpin, and the result will be a greater degree of liberty, whose degree is proven by all the figures , without exception of Bradov's presentation.

It has to be understood that Bradov is never proposing , like the fundamental figures of our invention are, for a basic degree of liberty, a new repartition of it in paddle and cylinder, which would be , in an ulterior phase, and as we are doing, materialised in various ways by a generative structure. On another note, it must also to be said that, when a machine is realised in a higher degree of freedom, some of the parts may be produced either in the same way, on in a contrary way in relation to their mechanical parts.

It is absolutely impossible to find in Bradov's limits of disclosure and claims any parts which show a machine with double compressive parts, realised with basic degrees of freedom, and in this machine, the laws and parts working in the same or opposite sense are much more specific. Finally, it must also be said that we prove that the Turbinative machine is also possible in a higher degree of freedom, but we showed that our mechanical means of realization are totally independent from that of Bradov, the complex synchroniser, a mechanical means which will result in enormous difficulties of production and application. So Bradov never gives new dynamic figures that would realise the machine with basic degrees of liberty.

On another note, always with a higher degree of liberty limited by its synchroniser, Bradov, like Schwam, gives no figure of contrary movement of the paddle and cylinder, and we are obliged to suppose that this contrary movement is simply, one between the cylinder and the high degree crank shaft of the paddle, and this with a paddle movement in the same direction. So, all of Bradov's intentions on these subjects are without value and are no more than a hypothesis, and can't be opposed to specific works.

The dynamic purpose of Bradov's works are very restraint by his principal objective, which is a method of realising higher liberty degree of rotary machines. The great majority of his work is centred on the mechanical synchroniser. This is proved by the elliptical or square double arc figure showed by Bradov, and by the mathematical formulas which he is purposing. We never utilise this kind of orientational control of the paddle in our works.
Bradov never speaks of contrary movement of compressive parts, and never shows anything of this nature. Bravov never speaks of contrary movement of mechanical parts at a basic degree of freedom, and never shows any figure of that kind of kinetic, or any mechanical support for them.

Let's repeat an important element of our disclosure: We can enounce that which follows. All machine in which the location of the next compression is located between the standard compression area and the Clockwise compression area, will have a contrario action of the compressive parts p 51

Beaudoin

The essential of our earliest works have been to produce several new mechanical means of orientational paddle control for a standard dynamic rotary engine. We also make an effort to show, principally by means of polycamed gearing and superposition of crankshafts, that it was possible to realise standard motion in higher degrees of liberty.

We did also, and this without proposing mechanical means and organisational determination, some sketches of double dynamic parts of compressive material rotary parts.
We were convinced , at this point in time

a) that translational movement of the paddle had to be coupled to a planetary movement of the cylinder
b) that rotational movement of the cylinder had to be coupled to a center movement of paddle that was describing a series of rectilinear sub movements, the group of these realising a geometrical figure
c) that one of the paddle movements was an alternative rectilinear one

It is clear that we had not arrived in these figure proposals (in majority, not described kinetically) at the basic , idiomatic and generative form of the Turbinative , in which a rotational cylinder is coupled to a translational paddle, or to a planetary paddle inscribed simultaneously, a geometric figure in relation to the bloc. For this reason, it was impossible at this point in time to explain all the variations of these initials forms, and the specific means by which it had to be supported, and finally the general organisation comprising their disposition in relation to a bloc of the engine.

So Turbinatives, as machine, are specifically the work covered by PCT CA 001615

Discussion of two objections

1) Geometric form and Sequential realisation of the geometric figure are pertinent and effective components of the Turbinative machine

Many invention containing a formula in which non material components enter.
This is true, for example, for a great number of pharmaticeutical products or for a great cooking patent.

In so many processes of realization, it is necessary to combine a certain number of components, not only in relation to their ratios, but also, at a certain specific speed, at a certain determinate degree. These non material components are in many cases, just as important as the material one, and so important that without their respect, the final product will not be realized.

The same thing is true for the Turbinative engine, which is distinctive by their dynamic aspect. The Geometric figure, The Observative figure, and the Sequence of realisation of them are not only essential for the comprehension of the machine, but also for its construction, and for its capacity in commercial realisation. It is important to note that when the cylinder is realised in the same piece as the bloc of the engine, the material , Observative and Geometric figures are the same. But when the cylinder and the paddle are moving, it necessary to determine not only if these pieces will continue to work in complicity, but also, if their cooperating movements will continue to be conform to the bloc. We have shown in our disclosure that this is not automatically realised. In fact, we can produce a machine in which the paddle and the cylinder will cooperate, and in which the ensemble will never past in the same position in relation to the bloc. In other words, the machine would never realise, in relation to the exterior, any cyclical relationship.

The relationship of the double cooperative movement of the paddle and the cylinder has to be guaranteed in a way to ensure the cycle relation of these movements to the exterior. We think that mathematical rules would have been possible, and that the geometric approach is not necessary the only one possible, but we think that it has been the most expressive and the easiest to understand.

So the Observative figure, the Geometric figure and the sequence of realisation of these are absolutely not a result, by are a dynamical component of the machine that will allow it's realization, and all the results which it will produce. Retracting or subtracting these

determinations would have for result to open the door to an invalid realisation, and at the impossibility of differentiation the different these different types, and finally, to an un precise of construction of them, because, as we say at several times, the mechanical means and the disposition of auxiliary components are totally dependant to the figure.

Auxiliary pieces

As we say in disclosure, the interest of the turbinative machine is to elaborate new dynamic relationships of the compressive components. But these compressive components, as we have said, stay the same as those of the art.

For this reason, about every habitual auxiliary component will stay the same in a turbinative machine, when they are realised as an engine, compressor, or pump.

As a first example, we know that spark plugs are generally disposed on the cylinder of the machine, and the in certain cases, they are also disposed on the paddle. There is no reason for which it would be different in a turbinative machinewhen realised as an engine. At this point, the spark plug will turn at the same time as the cylinder.

Industry already knows how to communicate the electricity between to parts which are simply passing near one another, for example in distributors, or how to keep constant electrical contact between two pieces in movement , like for example, brushes in electric engines. So, nothing new is necessary to provide the electricity to the spark plug. Finally , magnetos can directly produce the electricity that will feed the sparkplug. The only thing which is new is that this spark plug will fire at specific positions, determinated, like we said, in relation to the Geometric figure, or to its sequence.

Lets give another example.

It is well known that valves are generally , in a rotary engine, disposed either on the side of the machine, or in periphery. We don't see why it would be different in Turbinative machines. What is different is that these valves will close at different times and positions, and that these positions are determined by the Geometric figure, by the Observative one, or by their Sequential realization.

These figures allow the establishment of exactly where the exhaust and intake holes of the bloc will be disposed. Because the cylinder will act like a rotativo valve, a sealing part must be inserted between the cylinder and bloc, and the parts and techniques exist in the art .

Lets give a final example.

In the Turbinative engine, the paddle and cylinder are moving in the bloc. In standard rotary engines, or standard piston engines, the bloc is cooled, and this refreshes the inner parts. There is no reason that this would be different in turbinative engines. Moreover, in standard piston or rotary engines, cylinder is often constructed with cooling parts, when they are refreshed by air. We don't see why it would be any different in Turbinative machines, when there are realised with air cooling. Also, because the cylinder is turning, the fan can be fixed onto it. Finally, it would be possible to refresh the cylinder by water, using water from an exterior water pump to cool the cylinder. A seal between the cylinder and the water would be necessary. But none of this is new in that, water pumps are actually realised in this way and the sealing of the part is very efficient.

The same thing is true for the starter, generator and other parts.

It is evident that production of Turbinative engines will valorize all kinds of new inventions and accessories. But, for the basic realisation, all the actual accessories are fully utilisable, and nothing is new, except for their new disposition.

This is why we think that it is perfectly normal to claim the realisation of this machine as engine, pump compressor, artificial heart.